

ENGR:2730 Computers in Engineering
Christensen, Spring 2019
Homework #4
Due Monday, March 8, 2019 at 5pm

Introduction to the Simple Fast Multimedia Library (SFML). In this homework, you will get the Xonix game working in CLion. Watch the following video for an introduction
https://www.youtube.com/watch?v=_5W5sYjDBnA

Follow the instructions below to compile and run the Xonix game.

1. Start CLion in the VDI.
2. Copy the project named "Public/Homework/hw4" and paste it into your homework folder.
3. Add and commit this project to SVN. As usual do not check in the cmake-build-debug and .idea directories (i.e., set them to be ignored)
4. Load CMakeLists.txt
5. Select the Xonix | Debug in the dialog box next to the green triangle if necessary.
6. Compile the Xonix program by clicking on the green triangle. You should get the following error. Process finished with exit code -1073741515 (0xC0000135)
7. Once the file is built, the current CMakeLists.txt does not copy the needed .dll files to the build directory. You must add two directories to the PATH in the project debug environment in order to make it work.

Click on the down arrow next to the project debug button, then choose "Edit Configurations".

In the resulting dialog box click on the folder icon next to Environment variables.

In the resulting dialog box, click on the plus sign

Add a variable named PATH with a value of

```
%PATH%;C:\Program Files\SFML-2.5.1\bin;C:\Program Files\mingw-w64\x86_64-7.3.0-posix-seh-rt_v5-rev0\mingw64\bin
```

This will allow the compiled Tetris.exe to find the .dll files when you click on run. Click OK.

Part 1. [25pts] Modify the Xonix code to make it easier for you to understand.

1. Add comments to the program to enhance your understanding of the program.
2. Add curly braces to the for-loops, while-loops and if-statements.
3. Reformat the code to have proper indenting.
4. As shown in class: for each file that is opened, add an if-statement to check if the file was opened and to take the appropriate action if it was not, i.e., return EXIT_FAILURE;

Part 2. [25pts] Modify the Xonix main program in the following way.

5. Change the "struct Enemy" to "class Enemy"
6. Make all the member variables private.
7. Add getter and setter methods for each member variable.
8. Make any necessary changes to the program to make it work with the getter and setter methods.

Submission Instructions

You must make a CLion project called "hw4" under your SVN homework directory. Check your homework into SVN.